

HD-DV Camcorder

Welcome:

Dear user, thank you for purchasing this product.

We hope that our commitment to delivering a reliable and well-engineered product will provide you with an excellent user experience and years of hassle-free use.

Safety Notice:

1. Warranty will be voided if the camera is dropped, punctured or disassembled.
2. Avoid all contact with water, and dry hands before using.
3. Do not expose the camera to high temperature or leave it in direct sunlight.
4. Avoid applying unnecessary pressure to the camera body.
5. For your own safety, avoid using the camera during a lightning storm.
6. Only use accessories supplied by the manufacturer.
7. Keep the camera out of the reach of infants.

Avoid Hearing Damage:

Permanent hearing loss may occur if earphones are used at high volume. Set the volume to a safe level. You can adapt over time to a higher volume of sound that may sound normal but can be damaging to your hearing. If you experience ringing in your ears or muffled speech, stop listening and have your hearing checked. The louder the volume, the less time is required before your hearing could be affected. Hearing experts suggest that to protect your hearing:

- limit the amount of time you use earphones at high volume
- avoid turning up the volume to block out noisy surroundings
- turn the volume down if you can't hear people speaking near you



If the time arises to throw away your product, please recycle all the components possible.

Batteries and rechargeable batteries are not to be disposed of in your domestic waste! Please recycle them at your local recycling point.

Together we can help to protect the environment.

FCC Compliance Statement:

This device complies with Part 15 of the FCC Rules. Operation is subjected to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



This equipment has been tested and found to comply with limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in residential installations. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television equipment reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Move the equipment away from the receiver.
- Plug the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for additional suggestions.

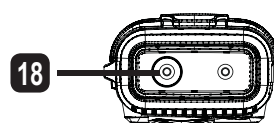
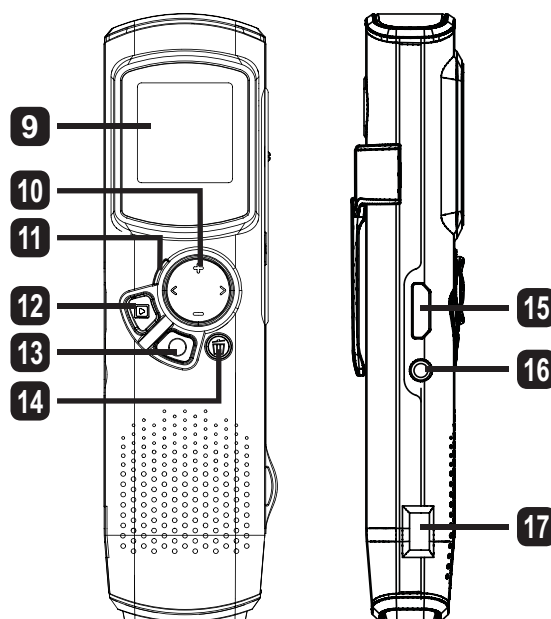
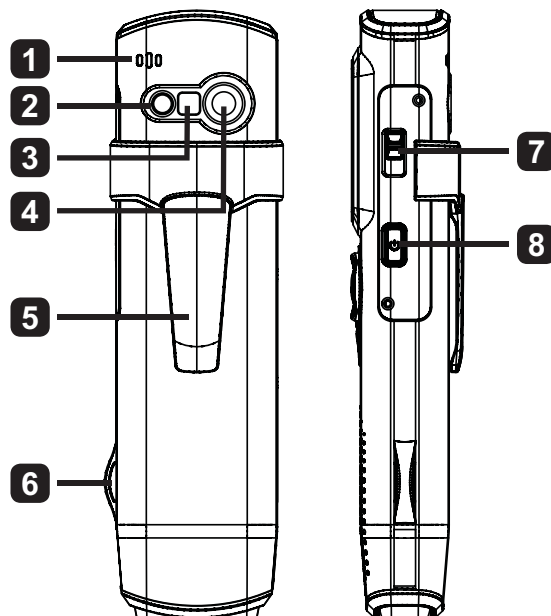
You are cautioned that any change or modifications to the equipment not expressly approved by the party responsible for compliance could void your authority to operate such equipment.

Getting Started

Product overview

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- 1** Microphone
- 2** LED light/strobe
- 3** Mirror (for self-portrait)
- 4** Lens
- 5** Clip
- 6** Strap holder
- 7** Mode switch:
 - Camcorder ()
 - Voice recorder ()
 - Camera ()
- 8** Power () button
- 9** OLED display
- 10** Directional () button
- 11** LED indicator
- 12** Playback () button
- 13** OK (Record/Shutter) () button
- 14** Delete () button
- 15** HDMI output
- 16** TV-out/Earphone connector
- 17** USB port
- 18** Tripod connector



Bottom view

Product operations

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Product introduction

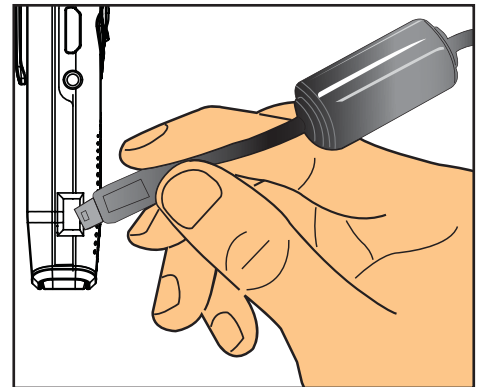
This digital camcorder comes with the following features:

- Ultra slim, pen-like compact design offers maximum mobility and freedom
- 1280 x 720 (720P) HD high definition video resolution up to 30fps
- Multi-functions: digital camcorder, digital still camera, voice recorder
- 2.84cm (1.1") compact design and energy efficient high quality OLED display
- Up to 5 Mega-pixel still pictures
- Built-in 4GB memory for storage
- Supports MOV, JPEG, and WAVE file format
- Supports USB PC connection
- Supports TV-out / HDMI-out / earphone

Charging battery

When using for the first time, please charge the built-in Li-polymer battery for at least 8 hours.

- 1** Make sure that the camcorder is powered off.
Then, insert one end of the USB cable provided into the USB port of the camcorder and the opposite end into a powered PC.
- 2** The LED light will appear red to indicate that the device is charging.
- 3** The LED light will turn off if the charging is interrupted or complete.

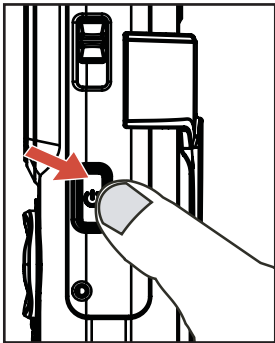


Note:

When using a PC to charge the battery, do not power on the camcorder or it will stop charging.

Powering on/off

Hold the Power () button down for 1 second to turn on, or to turn off the unit.



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- Note:**
- 1) If the camcorder fails to turn on after pressing the Power button, please recharge the battery first.
 - 2) If an AV cable or earphone connector is plugged in upon powering on, you will be prompted to select a connection option.

Display ratio

Due to the nature of OLED screens, the display ratio of still picture/video on the camcorder and TV/PC will vary. Please see the following table for details.

Mode	1.1" OLED display	TV/PC display
Video (preview/recording)	 (1:1)	 (16:9)
Video (playback)	 (1:1)	 (16:9)
Picture (preview/snapshot)	 (1:1)	 (4:3)
Picture (playback)	 (1:1)	 (4:3)

Note:
When outputting videos to a 4:3 screen, the display will be framed by black areas towards the top and bottom. When displaying pictures on a 16:9 screen, the display will be framed by black areas to the left and right.

Recording/Reviewing a video

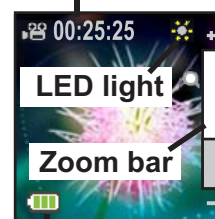
To record a video:

- 1 Power on the camcorder and switch to camcorder mode ().
- 2 Press the OK (Record) () button to start recording. Use the directional button up/down () to zoom in/out.
- 3 To stop recording, press the OK (Record) () button again.

Note:

Press the directional button to the right to enable the LED Light when operating in a dark environment.

Recordable time



Battery life

To review a video:

- 1 In camcorder preview mode, press the Playback () button and the last recorded video will play automatically.
- 2 When the unit is connected to TV or earphones, you can press the directional button up/down () to adjust the volume. While playing, you can press the Playback () button to pause/resume video playback.
- 3 During playback, press and hold down the directional button left/right () to fast rewind/forward the video. Tap left/right () to shift between video files.
- 4 To switch back to preview mode, press the OK () button.

Note:

After copying your videos onto your PC, you can play them back using the “Quicktime” player.

Taking/Reviewing a picture

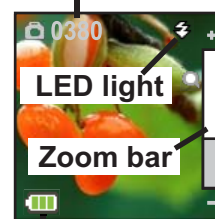
To take a picture:

- 1 Power on the camcorder and switch to camera mode ().
- 2 Use the directional button up/down () to zoom in/out.
- 3 Press the OK (Shutter) () button to take a picture.

Note:

Press the directional button to the right to enable the LED Strobe for picture taking in dark environments.

Remaining shots



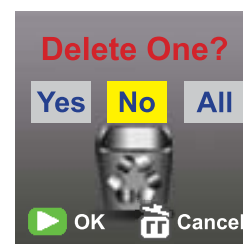
Battery life

To review a picture:

- 1 In camera preview mode, press the Playback () button.
- 2 Use the directional button left/right () to select the picture you wish to review.
- 3 While in Playback mode you can zoom in/out by pressing up/down (). You can then press the Playback () button to lock the ratio and navigate the picture by using the directional () button. Press the Playback () button again to unlock the ratio.
- 4 To return to preview mode, press the OK () button.

Deleting files

- 1 Press the Playback (▶) button while in preview mode.
- 2 Use the directional button left/right (◀▶) to select the file you want to delete and press the Delete (🗑️) button.
- 3 **To delete the current file:**
Use the directional button left/right (◀▶) to select “Yes” and press the Playback (▶) button.
To delete all files:
Use the directional button left/right (◀▶) to select “All” and press the Playback (▶) button. Then select “Yes” and press the Playback (▶) button to confirm.
- 4 To leave the deletion screen, press the Delete (🗑️) button.



Delete files

Voice recorder

To record a voice clip:

- 1 Power on the camcorder and switch to voice recorder mode (🎤).
- 2 Press the OK (Record) (●) button to start recording.
- 3 Press the OK (Record) (●) button again to stop recording.

To review a voice clip:

- 1 In voice recorder mode, use the directional button up/down (⬆️⬆️) to select a file and press the Playback (▶) button to play.
- 2 While playing, you can use the directional button up/down (⬆️⬆️) to adjust sound volume or press Playback (▶) to pause/resume playing.
- 3 To switch to a different recorded file during playback, press the OK (●) button to return to the file list. The voice clip will continue playing if it is not over yet. Then, press the directional button up/down (⬆️⬆️) to select a different recorded clip and press the Playback (▶) button.

Note:

Select the earphone icon after plugging in the earphone connector.



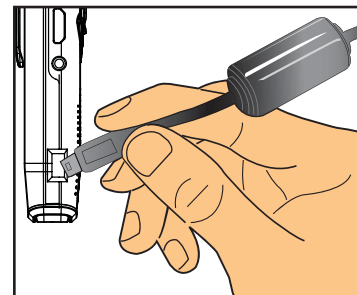
Set earphone connection

To delete a voice clip:

- 1 In voice recorder mode, use the directional button up/down (⬆️⬆️) to select the file you would like to delete.
- 2 Press the Delete (🗑️) button and follow the instructions in the “Deleting files - Step 3” section.

PC connection

When the camcorder is powered on and connected to a PC via the accessory USB cable, the system enters USB Slave mode. The internal memory is then treated as a removable disk on the PC, allowing you to access files stored in the camcorder.

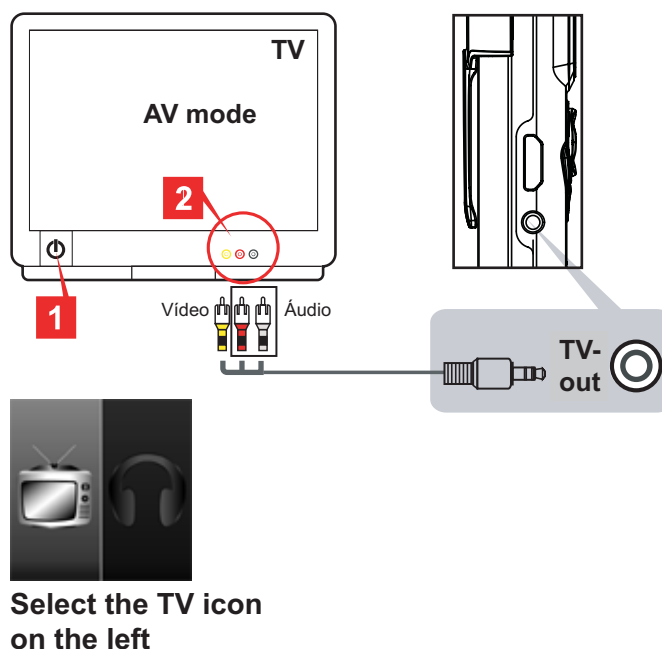


Connecting to a standard TV and HDTV

Connect your camcorder and TV via the included AV cable for real-time display.

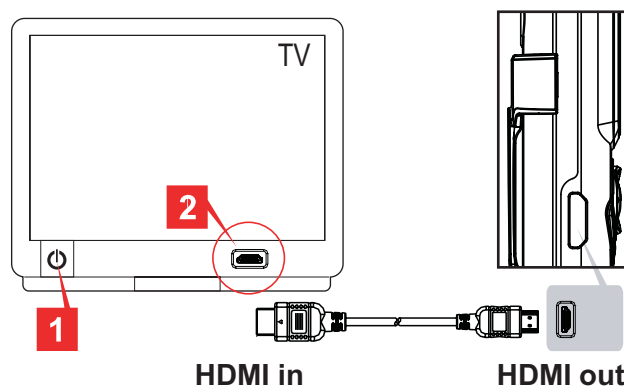
TV : Traditional CRT TV

- 1 Turn on your TV and switch to AV mode.
- 2 Connect the audio and video ends of the AV cable to the TV.
- 3 Turn on the camcorder.
- 4 Connect the other end of the AV cable to your camcorder.
- 5 Select the TV icon and press the OK button.



TV : HDTV with HDMI input port

- 1 Turn on your HDTV.
- 2 Connect the HDMI-in connector (the larger end) of the HDMI cable to the HDTV.
- 3 Turn on the camcorder.
- 4 Connect the other end of the HDMI cable to your camcorder.
- 5 Switch the HDTV to "HDMI input" mode.



Addendum

Troubleshooting

Problem	Cause	Solution
Q The camcorder is frozen and unresponsive.	A The camcorder has encountered a software failure.	S Press and hold down the power button to force a manual shut down to reset the camcorder.

Battery life indicator

Icon	Description
	Full battery life
	Moderate battery life
	Low battery life * The LED light/strobe will be disabled.
	Empty battery life

Note: To avoid sudden and unexpected loss of power, it is recommended that you recharge the battery once the indicator reaches “Low”.

Battery life

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Still picture	Video clip
Number of shots	Recording time (minutes)
310	125
* shoot every 30 seconds ** alternate flash (CIPA standard test method) *** resolution set to 5M (2592x1944)	* resolution set to HD 30f (1280x720)

Note: This table is for reference purposes only and is approximate. Actual battery life may vary slightly due to numerous factors including recharge level.

Storage capacity

Memory	Video (HD30f 1280x720)	Still picture (5M)	Voice recorder (.WAV)
4GB	100 min	2357	83.7 hr

Note: This table is for reference purposes only and is approximate. Actual capacity may vary (up to $\pm 30\%$) depending on the complexity of your subject and surroundings.

System requirements

Video Resolution	PC system requirements
HD 30f (1280x720) @30fps	OS = Windows XP SP2, Vista or above CPU = Pentium 4 3.2GHz or above System RAM = 1GB (2GB recommended) Display card = 256MB of RAM

Note: These are recommended minimum system requirements. The videos may be viewed and edited on lower spec. systems, but those systems may experience a noticeable decrease in performance.

Specifications

Item	Specification
Image Sensor	5 Mega-pixel (2592x1944)
Resolution	Camcorder: HD 720P (1280x720) Camera: 5 Mega-pixel
File Format	MOV, JPEG, WAV
Video Frame Rate	HD 720P up to 30fps
Internal Memory	4GB for storage
LCD Display	2.8cm OLED (1.1")
Lens	Fixed lens (F 3.0; f=7.15mm)
Flash Light	LED Back Lighting Support
Digital Zoom	3X
Night Shot Mode	Auto
White Balance	Auto
Voice Recorder	Yes
Microphone	Yes
Speaker	None
TV out	HDMI-out / Composite AV-out (NTSC/PAL system supported)
Power Save Mode	3 min.
Battery	Built-in Li-Polymer battery (950mAh)

Note: Specifications are subject to change without notification.